

BASIC WETLAND -MBI Survey Protocol

WAYPOINTS WGS84 Average ≥80 times
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SURVEY

- 1) Locate wetland. If there is not a wetland at the point you were assigned conduct a 30 minute timed search for amphibians and complete the remainder of this protocol.
- 2) Approach wetland quietly and scan for turtles as you approach. Take a waypoint upon reaching the wetland. Name it **Wxxx**.
- 3) Write the wetland number and the 'begin' laminated card. Photograph wetland from aspect which best shows it's character.
- 4) While at the wetland keep an eye out for, and take note of, target non-amphibian species.
- 5) Use a 50 meter section of rope to measure your first transect. You should survey the wetland in a clockwise fashion. If two observers are available, have the second observer independently survey the wetland in a counter-clockwise fashion. If there are two observers, there should be two data sheets. The second data sheet should be labeled 'QC'.
- 6) Dipnet each 50 meter section and record each amphibian species and development stage you detect. Estimate abundance in each section. If <10 individuals, count each one. If 10-100 individuals estimate to the nearest 10 (ie 20, 30, 40...). If there are more estimate '100s' or '1000s'.
- 7) Repeat until entire shoreline has been surveyed.
- 8) Collect a tissue sample from the first two individuals of each common amphibian species you encounter. Collect five tissue samples from tiger salamander, n. leopard frog, or wood frog. Samples from adults are preferred. Clip one digit (digit 3 or 5 is best) from hind foot of adult, collect whole small tadpoles, clip tail from large tadpole, or collect single egg. *Fill sample envelopes out completely.* Between each sample wipe scissors with cotton (your shirt) then with a bleach wipe.
- 9) If bumblebees are encountered during survey spend 5 minutes attempting to photograph individuals. If *western* bumble bee is seen spend up to 15 minutes attempting to photograph.
- 10) Draw a diagram of the wetland which includes relevant habitat: submerged logs, emergent vegetation, talus slopes, cliffs, inlet, outlet, and roped section locations.
- 11) If you believe you found a northern leopard frog, wood frog, or tiger salamander take many pictures.
- 12) Write the wetland number and 'end' on laminated card.

Photo ID

Wetland: W, cell #, P: The photo of the wetland from wetland 867: **W867P**

Plant/Bee: W, cell #, P, letter: bee photo after pictures have been taken of two plants wetland 867: **W867PC**

Sample ID

Tissue: W, cell #, T, letter: the fourth amphibian frog to be sampled at wetland 867: **W867AD**

HYGIENE, ANIMAL HANDLING, AND EQUIPMENT CLEANING

- 1) When you arrive at the wetland use a plastic bag to get some water from wetland. Dig a small hole about 75 paces from wetland and wash hands with biodegradable soap over hole. Fill hole in. Do not apply additional sunscreen or bug spray unless you wash your hands again.
- 2) Handle adult amphibians with clean wet hands. Observe tadpoles and transport other amphibians in plastic zip lock bags. Do not handle tadpoles directly unless collecting tissues. Discard bags after one use.
- 3) Clean mud, snails, and plants from equipment with stiff brush at site. Rinse in wetland.
- 4) At truck spray all equipment which touched wetland with 10% bleach. Spread equipment out to dry in back of truck while traveling to next site.
- 5) Soak rope in 10% bleach solution.